Hello, this a video for Engineering Measurement & System Monitoring unit, learning outcome one where we must measure mechanical quantities.

Here we are going to look at using a strain gauge to measure load or force. In the manual it is called Characteristics of a Strain Gauge Transducer. Beside where it says load there is a beam to which some washers are added as weights. From changing the load, the output voltage is changed so relatively straight forward, take ten readings. Here is the circuit set up with the output of volts. A multimeter could be used and here is our beam. Normally with a strain gauge you wouldn’t see the defection, it this case with a washer added the deflection can not be seen with the eye but the effect is seen on the voltmeter, as the strain gauge is very sensitive. We can see some of the causes of error such as in the position of the washers on the beam and the resolution on the voltmeter.

Thank you for listening.